

# D2.5 Working paper on public-private governance and regulatory instruments at the EU level

Grant Agreement n° 822735, Research and Innovation Action



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 822735. This document reflects only the author's view and the Commission is not responsible for any use that may be made of the information it contains.

# TRIGGER

## TRends in Global Governance and Europe's Role

Deliverable number:	
<b>Deliverable name:</b>	D2.5 Working paper on public-private governance and regulatory instruments at the EU level
<b>WP / WP number:</b>	WP2 – EU modes of governance
<b>Delivery due date:</b>	30.11.2019
<b>Actual date of submission:</b>	3.02.2019
<b>Dissemination level:</b>	Public
<b>Lead beneficiary:</b>	TUM

**Changes with respect to the DoA**

Not applicable

**Dissemination and uptake**

Public

**Evidence of accomplishment**

Report

## Content

1. Introduction .....	1
2. A Typological Model .....	2
2.1.    Unitary Public Rule-Making .....	2
2.2.    Public Rule-Making Bodies in Competition .....	3
2.3.    Private Rule-Making Through the Market .....	4
2.4.    Private Rule-Making with Institutional Focal Point .....	6
2.5.    Interests and Power: Role of Public and Private Actors in Technology Governance ...	7
3. From Conceptual Model Toward Explanation .....	9
3.1.    Demand .....	9
3.2.    Supply .....	11
3.3.    Use of Indicators.....	13
3.4.    The Ultimate Targets: Behavioral Change by a Subset of the Governed .....	14
3.5.    The Ultimate Targets: Behavioral Change by a Subset of the Governed .....	15
4. An Illustration: Open Innovation .....	15
5. References .....	18

## 1. Introduction

This internal guidance document for the TRIGGER project aims to provide an overview of different ways of thinking about the interplay between public and private governance and the regulatory instruments available to various stakeholders in the governance of technology – from the initial demands for technology governance through the rule-making, standard-setting, or norm-articulation stage through enforcement or compliance-encouragement. The general discussion builds substantially on Büthe (2010; 2012) and Büthe and Mattli (2011, ch.2), supplemented and extended by key insights from more recent literature on regulatory governance. A brief discussion of the regulation of open innovation illustrates in a specific contemporary technology governance context some of the larger themes discussed more abstractly in the first part.

There are many possible reasons why private actors may take on important roles in technology governance, ranging from perfectly legitimate interest representation in liberal democratic societies to filling governance gaps when public actors fail to provide technology governance that is considered needed or desirable by some stakeholder(s), to forestalling undesired public governance possibly through merely declamatory or "sham" governance, to attempt to undermine public – or competing private – regulatory schemes. Their incentives and opportunities depend in large part on the institutional setting and selection mechanism of the resulting norms, standards, or rules.<sup>1</sup>

---

<sup>1</sup> The governance literature frequently distinguishes between (i) social norms, understood as shared expectations about appropriate behavior (shared "among a community" that might in fact be defined by those shared understandings), (ii) standards, i.e., explicit norms that are codified through a known standard-setting process and recognized (at least by some) as guidance for practice, and (iii) rules, which differ from standards, above all, by being de jure mandatory, at least for a specified target group. See Riedl, Karacoc and Büthe 2020.

## 2. A Typological Model

To systematically consider differences in rule-making for technology governance and help explain differences in outcomes, this section and Figure 1 presents a typology of rule-making – a slight elaboration of the typology developed in chapter 2 of Bütte and Mattli (2011). It distinguishes four modes of global (or at least transnational) governance, based on whether rule-making takes place in *public* or *private* settings (the horizontal axis in Figure 1) and whether the institutional structure is *unitary*, with a clear focal point for global rule-making, or *plural*, with multiple, competing fora for global rule-making (the vertical axis in Figure 1).

		<u>Institutional Setting</u>	
		public	private
<u>Institutional Structure</u>	unitary	(I) rule-making in a focal int'l agreement or int'l organization; transgovernmental regulatory collaboration	(IV) rule-making in transnational focal standard-setting body
	plural	(II) competing rules developed by/in national, regional, or minilateral public bodies	(III) competing rules of individual firms, consortia, or competing transnational bodies

Figure 1 4 Types of Global Rule-Making

Distinguishing these two dimensions not only yields four ideal types, but draws analytical attention to distinctions between them, which are important for understanding and explaining who is most likely to have influence over the content of the rules in each type. I will discuss each of the four types, counter-clockwise from top left.

### 2.1. Unitary Public Rule-Making

Research on global rule-making by political scientists and legal scholars has until recently focused primarily on governments, collaborating to regulate public and private behavior in issue areas characterized by international interdependence. Specifically, the focus has been on public rule-making through *ad hoc* agreements, transgovernmental

collaboration among specialized government agencies, or rule-making in formal international organizations (IOs). Issue-specific treaties and international agreements, such as the UN Convention on the Law of the Sea, constitute a form of *ad hoc* public rule-making; they fit the unitary type in that they are negotiated among all the Parties to which the rules are to apply.<sup>2</sup> Direct collaboration between specialized public officials charged with similar tasks in different countries can result in transgovernmental rule-making and has often even become institutionalized, such as in the Basel Committee of central banks and banking supervisory authorities (e.g., Singer 2007; Slaughter 2004). The most prominent unitary public fora for global rule-making are formal international organizations, such as the Codex Alimentarius Commission, the International Maritime Organization, the International Monetary Fund (IMF), or the International Telecommunications Union (ITU).<sup>3</sup>

Governments are the key actors in global rule-making of this type, and existing analyses suggest that the traditional power resources of states emphasized by Realist IR theory (e.g., Krasner 1991) often determine their relative influence over the resulting rules, for a variety of reasons.<sup>4</sup> Even though political power resources are rarely perfectly fungible (Baldwin 1989; Keohane and Nye 2001 (1977)), large and wealthy countries may, for instance, be able to gain the support of poorer or smaller countries by linking the issue of the day to foreign aid, market access, or other benefits. Militarily powerful states may be able to use their leverage over client states to gain their support in organizations dealing with entirely unrelated matters. And when fundamental conflicts exist between major powers and cannot be resolved through compromise, there may only be "sham" rules that paper over existing disagreements without real harmonization—or no rules at all (Drezner 2007).

## **2.2. Public Rule-Making Bodies in Competition**

Rules that address global problems or effectively govern behavior on a global scale need not originate in a global forum. Rules ranging from vehicle emissions standards, consumer safety standards for products or financial services, and reporting

---

<sup>2</sup> I omit here the caveat regarding the establishment of customary international law; the issue of power imbalances is addressed below.

<sup>3</sup> Such IOs vary considerably in their age, breadth of activities, and membership; see Barnett and Finnemore (2004).

<sup>4</sup> Governments are the key actors even if increasingly no longer the only ones: There is substantial private-sector participation in a number of nominally international *governmental* organizations (e.g., Büthe and Harris 2011; Koppell 2010).

requirements that aim to inhibit money laundering, to criteria or procedures for antitrust enforcement are often initially drawn up by legislatures or regulatory agencies at the domestic level. In the absence of a clear institutional focal point for global rule making, some countries (or regional bodies such as the EU) may then seek to establish their rules as global rules, after exogenous or endogenous changes increase interdependence and thus create functional or political-economic incentives for common rules (e.g., Bütte 2007; Simmons 2001; Vogel 2012). The lack of a unitary structure thus results in competition between legislatures or regulatory agencies of two or more countries, or competition between multiple regional or minilateral rule-making bodies. Competition between two or more IOs for pre-eminence in an issue area (e.g., Pollack and Shaffer 2009) also is an example of this type of global rule-making.

Global rule-making that entails competition between multiple public bodies has received much less analytical attention than rule-making in unitary public institutions. The international distribution of (state) power may be expected to play a role here, too, at least to the point where small and poor countries would rarely if ever try to establish their rules as global rules. The co-existence of multiple alternative rule-makers, however, should limit the usability of most of the traditional power resources of states since the process through which one of the competing rules becomes the global rule resembles market competition more than a political process. When it comes to rules for traded goods, for instance, market size is a potential source of power because international producers will usually not want to forego access to a major market, and if there are economies of scale in production, higher consumer safety or environmental standards in even a single large market might effectively govern global production (Vogel 1995). Market size becomes an actual source of influence, however, only to the extent that it is combined with what the World Bank has called "regulatory capacity," i.e., the extent to which governments have the ability to leverage market size into a political-economic commercial strategy thanks to an administrative capacity for controlling market access and for extraterritorial application of the country's law and regulations (e.g., Bach and Newman 2007).

### **2.3. Private Rule-Making Through the Market**

While political scientists have tended to focus on global rule-making in unitary institutions where governments are the key actors, economists have tended to focus on private actors, especially firms, writing rules that effectively govern global markets even



in the absence of a unitary institutional structure.<sup>5</sup> As frequently observed in the fast-changing information and communications technology (ICT) industry, firms create *de facto* global rules if their particular practices or technologies become dominant in the market, such as Microsoft's Windows operating system (Grewal 2008:198ff) or more recently Sony's Blu-ray optical disc format, which won out over Toshiba's HD-DVD format after years of intense battle that cost billions (Brookey 2007; Flaherty 2004; Soble 2008).<sup>6</sup> Other private actors, most importantly NGOs, may also set *de facto* global rules, for instance, for environmental stewardship, corporate social responsibility, "fair" prices paid to developing country farmers, or kosher food preparation (Baron 2001; Bartley 2007; Cashore, Auld, and Newsom 2004; Starobin and Weinthal 2010).

Who prevails when private rules compete? While private rule-making is by definition non-governmental, power still matters. But existing analyses suggest that power is here primarily a function of (1) the size of global or domestic markets controlled by those who support a particular practice or technology and, most importantly, (2) the commercial and political strategies employed by the rule-making body. For firms, this may entail capturing a market by bringing a product to market before competitors, striking the right balance between keeping exclusive control over intellectual property and licensing it (depending on timing and other contextual factors), and other business strategies, but also political strategies such as excluding competitors from crucial distribution networks, offering special pricing to key retailers such as Walmart, or lobbying for legislative or regulatory recognition or even mandates that enshrine private rules in laws, regulations, or international agreements (e.g., Besen and Farrell 1994; Gabel 1991; Greenstein 2006). For non-commercial private actors, this tends to entail generating or re-directing consumer demand for goods or services that exhibit qualities specified in, or were produced in compliance with, rules for environmental sustainability, corporate social responsibility, etc. (Vogel 2008). It may also entail seeking adoption of their rules by public bodies.

---

<sup>5</sup> There is an extensive literature on this mode of global governance from economists and increasingly also from other social scientists. For comprehensive surveys, see Swann (2000) and Vogel (2008).

<sup>6</sup> Firms may act as rule-makers individually or in small groups known as "consortia," i.e. short-term collaborations for technology development, which fall short of joint ventures and are not supposed to limit subsequent competition between the participating, thus steering clear of antitrust concerns.

## 2.4. Private Rule-Making with Institutional Focal Point

Market-based private governance is by no means the only form of private rule-making. About 85% of all international product standards, for instance, are developed in/by the International Organization for Standardization (ISO) and its sister organization, the International Electrotechnical Commission, which in their respective areas of expertise are for most industries the unambiguous focal points for global rule-making. Generally, this type entails deliberate rule-making by or through an international non-governmental organization that constitutes, for the issue in question, a unitary institution, i.e. there may be sub-organizations, specialized committees, or national chapters but they operate under a unitary institutional structure that ensures cohesiveness and the promulgation of a single common rule at the international level. These organizations often enjoy the privilege of tacit or explicit endorsement by governments, safeguarding their jurisdictional domains against competitive pressures. The transnational standard-setting bodies themselves, however, are—often adamantly—non-governmental.

The politics of private rule-making in these settings has been studied less than other types of global rule-making, in part due to the difficulty and cost of collecting comprehensive and systematic, unbiased data on transnational rule-making (precisely because the relevant institutions and actors are private), but recent research yields some clear findings, supporting institutional complementarity theory (Büthe and Mattli 2011; see also Green 2010): Global rules often are more beneficial to some than to others, so that distributional conflict is likely and even seemingly technical global rule-making can be an intensely *political* process that involves bargaining, coalition-building, and generally the strategic pursuit of often high commercial stakes. Under these conditions, economic resources and technical expertise are clearly necessary for effective participation, but not sufficient for shaping the content of the global rules in transnational focal institutions. Even though rule-making may have shifted to the international level, how private interests are organized at the national level still matters; and domestic institutions vary greatly, including in their suitability for interacting with focal private organizations at the international level. Cross-national differences in the complementarity between domestic institutions and the institutional structure of rule-making at the international level, rather than traditional power resources such as market size or military might, puts stakeholders from some countries at a substantial advantage vis-à-vis others. Given the institutional structure and decisionmaking procedures in ISO and IEC (and in similar unitary private organizations for global rulemaking such as the IASB), the ease and speed of information flows between the international and domestic

levels and the domestic institutional capacity for aggregating preferences are crucial determinants of power (privileging domestic institutional hierarchy and coordination over fragmentation and market competition, see Büthe and Mattli 2011), but the broader insight is that the critical characteristics of domestic institutions are a function of the international institutional structure. Hence the emphasis on institutional complementarity.

## **2.5. Interests and Power: Role of Public and Private Actors in Technology Governance**

Governance involves relationships of power, which, however, are easily obscured. To make them visible, building on Büthe (2012), we distinguish four sets of stakeholders, which underscores the need to separately account for (1) the demand for technology governance, (2) the supply of the norms or rules to govern technology, (3) their implementation or use, and (4) the behavioral adaptations by the ultimate “targets” of governance. Doing so makes otherwise obscured relationships of power visible, including between public and private stakeholders.

The first group consists of socio-political actors who either overtly call for technology governance or value it to the point where they are willing to give credit or pay some cost for its provision. The intensity of their preferences explains what may be called the level of such demand in any particular case.<sup>7</sup> For reasons discussed below, we may call these stakeholders, who demand regulatory governance, the “rule-demanders.” The second group consists of the actors who write, maintain, and disseminate – and in that sense “supply” – the rules. We refer to them as the “rule-makers.” Their supply of governance needs to be explained because rule-making activities are costly. Actual or potential “users” constitute the third group. This group consists, specifically, of those who themselves utilize the rules in question (e.g., a developer of a new technical solution who conducts an environmental impact assessment for that new technology in accordance with a measurement procedure specified in the rules), as well as those who use the results of the application of the rules in their assessments or decisions (e.g., a consumer goods manufacturer who decides between alternative technical solutions based on their environmental impact assessments). In some respects, all actual and potential users may be considered a target of technology governance in that explicit, often technical rules seek to affect the way in which technology users act (or at least to

---

<sup>7</sup> Note that this *political* notion of demand differs from the standard notion of demand in economics.

oblige those who deviate from the prescribed behavior to justify their deviance). However, we distinguish among them the subset of users whose actions are directly governed by the rules. We posit those users as the ultimate "target" of any technology governance effort.

Any of these particular sets of stakeholders may more or less overlap (see Figure 2), with important implications for the relationships of power among the stakeholders. Moreover, there are good reasons to expect that, for specific instances of technology governance, the group of stakeholders is even broader than the combination of rule-demanders, rule-makers, and users (including targets). Because governance activities often have externalities, it is likely that someone will benefit or be negatively affected beyond the four subsets of stakeholders identified by this model.

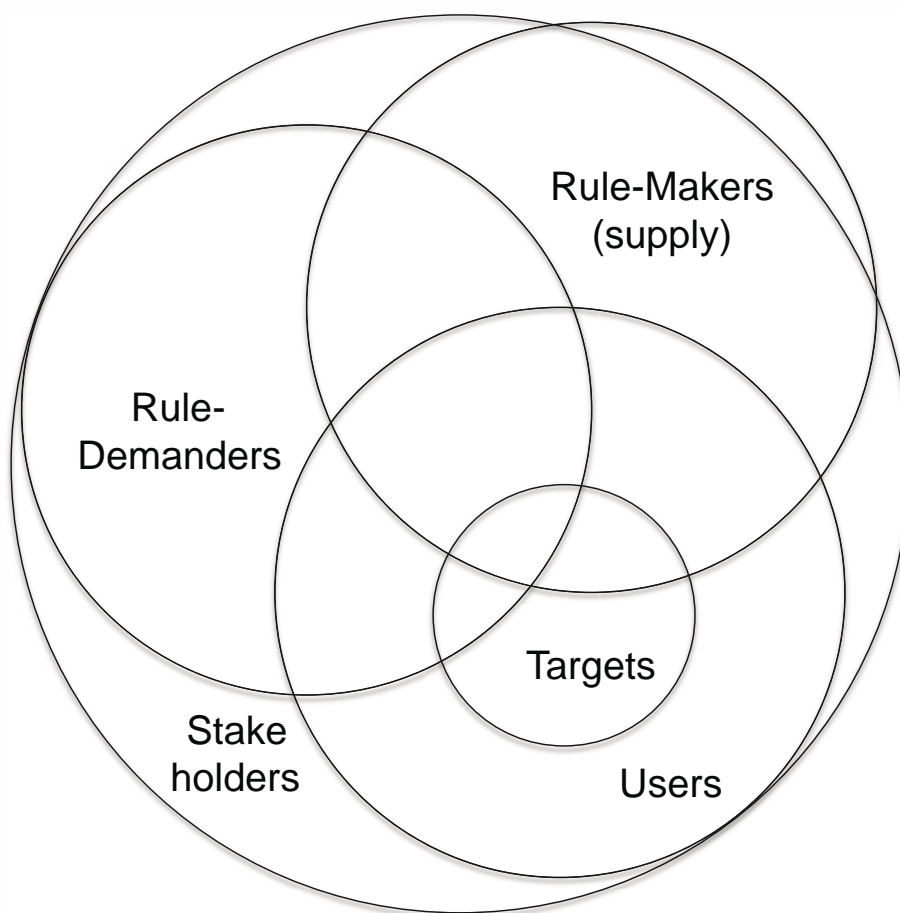


Figure 2 Multi-Stakeholder Model of Technology Governance

Recognizing the possible divergence among the various stakeholders, has implications for both positive analysis and normative assessment. For positive analysis, it underscores the need to examine – separately – demand, supply, and use, as well as

the behavioral adaptation by the ultimate "targets" of technology governance. For normative analysis, the model helps, for instance, identify otherwise obscured relationships of power: Ideal-typical "self-regulation" entails complete overlap of all the groups. The more the rule-makers diverge from the targets of the rules, the more does the supply of rules entail the exercise of power. Put another way, power will matter more, the more the targets of the rules are excluded from rule-making (or the more the set of rule-makers extends the targets of the rules). And regardless of whether "third parties" benefit from the private rules or are negatively affected by them, the extent to which such passive stakeholders are excluded from the rule-making process determines how much such governance diverges from liberal notion of "democracy," in which all who are affected by a decision have a voice in the decisionmaking (Dahl 1985; see also, e.g., Benvenisti and Downs 2009).

### **3. From Conceptual Model Toward Explanation**

In this section, we sketch possible explanations for why rule-demanders might seek technology governance, why rule-makers might supply such governance, why users might use those rules – and why the targets tend to respond in ways that make the rules a power resource in the Dahlian (1957) sense of allowing one actor to cause another actor to do something the latter would not otherwise have done. The goal of this sketch is not to be comprehensive but to illustrate the usefulness of the above model as a framework for analysis and to give a sense of the diversity of possible drivers of public and private engagement in technology governance.

#### **3.1. Demand**

Demand for rules *can* be simply a functional pursuit of Pareto-improving efficiency gains. At the micro level, within firms, for instance, the demand for rules that facilitate the internal exchange of information is often motivated by wanting to lower transaction costs or increase reliability.<sup>8</sup> At the macro level, the demand for technology governance might be expected from actual or potential market participants seeking to facilitate commercial transactions, or from political leaders seeking to spur innovation or increase the efficient operation of markets in implicit recognition of the fact that markets

---

<sup>8</sup> Such benefits have been amply documented in micro-economic studies, e.g., DIN 2000, esp. 14f; Joynt 1972.

do not spontaneously arise but require rules well beyond a guarantee of private property rights (see Fligstein 2001; S.Vogel 1996; 2008; 2018).<sup>9</sup>

Demand for technology governance need not, however, be driven by commercial interests. It may also be prompted by a sense that some stakeholders have needs, combined with an entrepreneurial idea for how to meet those needs.

The desire to have an "objective, scientific" measures of performance to use in naming and shaming those with poor performance provides a third possible, more overtly political explanation for demanding an indicator. The demand for many corporate social responsibility (CSR) standards may be explained in this way (see D.Vogel 2005; 2008); indicators of human rights laws, policies, or outcomes often started out with such a political use already intended (e.g., Fischer et al 2012; Kelley and Simmons 2015).

Strikingly, much technology governance is provided by private (non-governmental) bodies. This raises the additional question: Why would anyone seek *private* rather than public rules, given that private actors generally lack the coercive capacity of public regulators to make their rules "stick"?

One possible reason is simply that the non-governmental realm is where the pertinent expertise is. This is especially likely when the technology to be governed is changing at a fast pace, making it more challenging for anyone who is removed from the scientific and technological frontier – such as a regulatory generalist in a government agency – to have up-to-date information about what exactly the novel characteristics of the technology are, which might warrant regulation (and how it can done). As Abbott and Snidal (2009: 44, 68) note about the regulatory process more generally: As a consequence of the "scale and structure of contemporary global production..., no actor group, even the advanced democratic state, possesses all the competencies required for effective regulation." Reduced ability of governments to provide effective technology governance might prompt rule-demanders to seek private rules instead.<sup>10</sup>

---

<sup>9</sup> The push for the international harmonization of financial reporting rules, for instance, was motivated in large part by political leaders' expectation that having common rules to govern financial reporting in increasingly global financial markets. would lead to a more efficient allocation of capital; see Bütthe and Mattli 2011; Camfferman and Zeff 2007; and Martinez-Diaz 2006. Note that anticipated gains might still fail to result in observable demands due to collective action problems.

<sup>10</sup> Government deference to private bodies may be motivated by a desire to achieve efficiency gains from specialization and to benefit from specific expertise that already exists and is more efficient to maintain in the private sector instead of having the government acquire/maintain it "in house." It may, however, also be motivated by a lack of political will. Even when such a demand for private rules entails explicit delegation of governmental authority to private bodies, it need not entail complete abdication by governments. In Europe, product safety rating, for instance, has

The literature on delegation of public authority also identifies more overtly political motivations for delegation to a private rule-maker, such as shifting responsibility in order to seemingly de-politicize the issue and avoid subsequent blame (Büthe 2006-2010; Fiorina 1982). Another politically important motivation for delegation is to institutionalize a policy bias favored by the current, temporary political majorities (Moe 2005). Bias in favor of the private sector, for instance, may be effectively institutionalized by delegating rule-making to a private body in which "members" pay for a seat at the table, thus reducing the involvement of non-commercial civil society interests (Büthe 2009; Büthe and Mattli 2011, ch.9).

Individuals and civil society groups might of course also seek private rule-making. In fact, some of the most prominent private standards in the international political economy were prompted by demands from societal actors who felt that their *non-material* interests were affected by private commercial transactions between other private parties, and that existing or missing public rules failed to safeguard their interests sufficiently. Social activists have thus demanded standards for forestry practices (e.g., Bartley 2003; Cashore, Auld, and Newsom 2004; Meidinger, Elliott, and Oesten 2003), environmental management (e.g., Delmas 2002; Prakash and Potoski 2006), corporate social responsibility (D.Vogel 2005), and many other aspects of the behavior of key actors in the global economy. Often these demands were initially aimed at governments but were transformed into demands for private rules when governments proved unresponsive or when inter-governmental negotiations were excruciatingly slow.<sup>11</sup>

### 3.2. Supply

Functional explanations of the demand for private regulation, which emphasize anticipated efficiency gains, may be read to imply that such efficiency gains will also induce potential private-sector rule-makers to supply those rules. Such an ideal overlap of demanders and suppliers, however, rarely just happens but may need to be politically

---

increasingly entailed governments laying down general principles but leaving it to private bodies at the regional level, such as CEN and CENELEC for general product and electrotechnical standards, respectively, to specify the best way to meet those broad public policy objectives without introducing non-tariff barriers to trade or otherwise fragmenting the Common Market through cross-national divergence in regulatory measures. See Egan 2001; Schepel 2005.

<sup>11</sup> In some cases, these demands from societal stakeholders prompted formal government delegation to a private standard-setter, because it allowed governments to achieve a policy outcome favored by its domestic constituents but without running afoul of the government's obligations under international law, such as linking market access to labor conditions or environmental performance of the producer, which is impermissible under WTO rules (see Bartley 2003; D. Vogel, 2008).



established, since collective action problems and especially incentives to free-ride can be expected to undermine the functionalist supply of private regulation.<sup>12</sup>

It is also possible that some individuals or groups with the requisite technical expertise might supply governance out of altruism. Although some argue that even altruism is inherently impure because it benefits the ostensible altruist, at a minimum, through an increased sense of self-worth (Andreoni 1990), such altruists might have no prior stake in phenomenon or the specific measure adopted. Hence, the circle depicting the set of suppliers in Figure 1 extends slightly beyond the total set of stakeholders.

Beyond situations where altruism or public good-like gains explain the supply of technology governance, it is likely to be undersupplied, unless rule-making also brings some economic, political, or other *private* benefits for those who participate or contribute to it: material gains, the institutionalization of disproportionate influence over the content of the rules, or lock-in of a particular policy.

Material gains may accrue to rule-makers directly, e.g., if the specific contents of the rules increases the value of IP rights they hold (as examined extensively in the literature on standards-essential patents) or indirectly, e.g., if supplying governance allows the rule-maker to create or retain barriers to entry, or create or reinforce an oligopolistic market structure, guaranteeing profits greater than the cost of rule-making.

Supplying governance can also bring political gains, by ensuring immediate influence over the content of the rules and often by institutionalizing and thus safeguarding the rule-making privilege of a particular set of experts (guaranteeing greater influence for a particular set of interests vis-à-vis other stakeholders). The supply of governance as a means of ensuring influence is particularly attractive if there is a real prospect that an alternative indicator may otherwise be supplied by an actor with differing preference or in a body with fewer opportunities to exert influence over the content of the rules (see the typology in section 2 of this paper). The threat of government regulation,

---

<sup>12</sup> This logic is nicely illustrated Sarah Dadush's analysis of the IRIS/GIIRS indicators for impact investing (2012). The interest among investors in investment opportunities which offered not just a financial return but simultaneously a chance to have a "positive impact" created a multi-stakeholder demand for the governance of such investment opportunities, which would establish characteristics such as the magnitude and likelihood of the "positive impact" in credible and comparable ways. The supply of rules for comparably measuring these characteristics promised to literally create a market, bringing not just a Pareto-improvement but benefits for many stakeholders. Yet, given the small size of initial investments of this kind and the risk that multiple, uncoordinated metrics would undercut the market led to under- or more precisely non-supply – until the Rockefeller Foundation, JP Morgan, and US AID joined forces and launched the Global Impact Investing Network to overcome collective action and coordination problems among the stakeholders to develop the IRIS/GIIRS indicators.



for instance, often provides a powerful incentive for the supply of rules by the private sector (Haufler 2001; Helleiner 2009; Bütte and Mattli 2011).

At the same time, such distributional implications of the supply of governance create incentives for establishing competing rule-makers. Such competition between multiple alternative would-be rule-makers is in fact quite common, for instance in the realm of “fair trade” where NGO-based standards and certification compete against alternatives developed by private sector firms (see Jaffee 2007; Levi and Linton 2003; Raynolds, Murray and Wilkinson 2007; Taylor 2005).

### **3.3. Use of Indicators**

Even when governance is provided by someone with no power over potential users – thus resulting in de jure entirely voluntary standards rather than binding “rules” – governments (or others in a position of authority) may subsequently require their use, resulting in widespread adoption. Domestically in the United States, for example, the explicit delegation of regulatory authority for health and safety standards to private bodies has often been accompanied by federal and state-level laws and regulations mandating their use and even compliance (see Cheit 1990; Hamilton 1978; Macaulay 1986; Salter 1988). In more recent years, this practice has also become common inter- and transnationally across a broad range of regulatory issues.

Notwithstanding the importance of governmental measures that may render compliance with private standards mandatory, many private standards are widely used even when not required. They may even be used by socio-political actors who would have preferred a world in which no such standards existed. To understand why they nonetheless comply, it is useful to distinguish between several possible reasons, starting again with strictly Pareto-improving economic incentives (which may nonetheless have distributional implications), then moving to more overtly political incentives.

In any context where there are infrequent arms-length interactions between two or more parties, information asymmetry between them can impede collaboration and exchanges that would benefit both sides. This finding has been well established for product markets where, as George Akerlof (1970) famously pointed out, information asymmetry between buyers and sellers depresses quality and size of markets, but the logic also applies more broadly. To the extent that the rules of any particular technology governance scheme overcome information asymmetries or similar efficiency-impeding challenges, both sides' economic incentives to overcome or at least reduce those

impediments might suffice to explain implementation of, and compliance with, the rules (this might even feed back into demand).

Network externalities (David 1985; Katz and Shapiro 1985) can also create incentives for user. Network externalities arise whenever the benefit one derives from a particular choice increases with the number of others who have made the same choice, or when the value of a product increases with the extent to which complementary products are available.

A more overtly political reason for the use of an indicator is the demand by some subset of stakeholders for systematic provision of information that is not otherwise provided. Such a desire may be articulated by the original “demanders” and thus be directly tied to a specific standard: Direct pressure from activist NGOs (or consumer demand stimulated by such civil society groups) has led many businesses to commit at least rhetorically to various “fair trade” and other corporate social responsibility standards and to report their performance on the measures specified by those standards. Alternatively, the desire for systematic information may of course also originate with individuals or groups who have no relationship to those whose demand and supply brings a certain technology governance scheme into existence in the first place.

### **3.4. The Ultimate Targets: Behavioral Change by a Subset of the Governed**

The ultimate targets of regulatory governance face both material and socio-political incentives for behavioral adaption (in addition to possibly psychological pressures arising from a sense of being observed). The economic (materialistic) incentives may, as before, operate directly or indirectly. Political-legal incentives may reinforce more indirect material incentives: Standards often define “best practice,” and not living up to it can be costly. A firm that does not implement widely accepted standards for workplace safety, for instance, may face a higher insurance premium (Ericson, Doyle and Barry 2003). Should an accident occur and lead to a lawsuit, having complied with the best practice standards does not necessarily safeguard the firm against losing in court. But, as Fabrizio Cafaggi has found, *not* having implemented what is widely considered “best practice” will in many jurisdictions substantially increase the risk of being found negligent (Cafaggi 2009).

A further important socio-political incentive may arise from overt peer pressure. In what is considered an exemplary case of pro-active industry self-regulation after the Three-Mile Island nuclear power plant accident, the Institute of Nuclear Power Operations created a “new responsibility-centered industrial culture” (Rees 1994). Yet,

this "success," Bridget Hutter (2006:66) points out, was only achieved through sustained peer pressure and mutual assurances among the firms in that industry to avoid government regulation. The clarity and specificity of the rules and standards at the core of technology governance should facilitate bringing such pressure from within the social group or even beyond (such as from the "international community").

### **3.5. The Ultimate Targets: Behavioral Change by a Subset of the Governed**

The ultimate targets of regulatory governance face both material and socio-political incentives for behavioral adaption (in addition to possibly psychological pressures arising from a sense of being observed). The economic (materialistic) incentives may, as before, operate directly or indirectly. Political-legal incentives may reinforce more indirect material incentives: Standards often define "best practice," and not living up to it can be costly. A firm that does not implement widely accepted standards for workplace safety, for instance, may face a higher insurance premium (Ericson, Doyle and Barry 2003). Should an accident occur and lead to a lawsuit, having complied with the best practice standards does not necessarily safeguard the firm against losing in court. But, as Fabrizio Cafaggi has found, *not* having implemented what is widely considered "best practice" will in many jurisdictions substantially increase the risk of being found negligent (Cafaggi 2009).

A further important socio-political incentive may arise from overt peer pressure. In what is considered an exemplary case of pro-active industry self-regulation after the Three-Mile Island nuclear power plant accident, the Institute of Nuclear Power Operations created a "new responsibility-centered industrial culture" (Rees 1994). Yet, this "success," Bridget Hutter (2006:66) points out, was only achieved through sustained peer pressure and mutual assurances among the firms in that industry to avoid government regulation. The clarity and specificity of the rules and standards at the core of technology governance should facilitate bringing such pressure from within the social group or even beyond (such as from the "international community").

## **4. An Illustration: Open Innovation**

The term "open innovation" was coined in the early 2000s by University of California professor Henry Chesbrough. In his book *Open Innovation: The New Imperative for Creating and Profiting from Technology*, Chesbrough (2003) described – and advocated

– a new approach to innovation that is less closed and less centralized than traditional research and development (R&D) processes in large firms. In contrast to vertically integrated approaches to the development of new technologies, open innovation is "the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively" (Chesbrough 2011). However, while open innovation necessitates a decentralization of the R&D process, there is still a need for an overarching architecture that connects disparate actors and activities.

According to an article that appeared in *Forbes* several years after he published *Open Innovation*, Chesbrough (2011) decided to promote the concept of open innovation based on his time as a manager in the disk drive industry in Silicon Valley, during which he observed that the required knowledge for innovation is widely distributed, meaning that no company, no matter its size or capabilities, could innovate effectively on its own. This suggests that Chesbrough believed there was demand for the concept of open innovation from private firms. It remains unclear, however, whether Chesbrough was asked explicitly to explore the topic of open innovation or rather deduced from his experience as a Silicon Valley executive that there would be demand for open innovation scholarship from the private sector and thus decided to make this topic the focus of his research.

Given their role as demanders of the concept of open innovation, it is perhaps not surprising that private sector firms are among the users of the concept. However, writing in *Forbes*, Chesbrough acknowledged that there were other user groups as well, and that they might use his ideas about open innovation for different purposes. Being a professor himself, he recognized that academics could build on his thinking by elaborating, among other things, on the governance frameworks and business model shifts required to make open innovation work. Large companies could implement the concept by opening up their R&D processes and working more closely with universities, small firms, individual innovators, and startups. These actors, in turn, could benefit from open innovation by sharing ideas with large firms that they themselves were unable to monetize.

Another group of actors that began to use Chesbrough's ideas were policymakers, who hoped that by understanding and supporting the idea of open innovation, they could increase levels of R&D and innovation in the societies they govern. For example, the European Commission maintains a website that provides an overview

of a) policies supporting open innovation, b) funding sources for innovators, and c) support services for innovators.<sup>13</sup> Interestingly, however, the Commission seems to conflate the terms "innovation" and "open innovation," as the policies meant to support open innovation are for the most part much broader than the measures that Chesbrough's conceptualization would suggest. Only the European Union's "Open Innovation Deals," which are "voluntary cooperation agreements between the EU, innovators and regional or local authorities" seem to match Chesbrough's definition. Thus, the Commission appears to have appropriated the term to denote policies that support innovation and are at the same time compatible with the EU's guiding principles of openness and transparency.

Different user groups, then, use the concept of open innovation in different ways. However, the distribution of power among the different user groups is not symmetric. Since open innovation is an actual set of rules for conducting business rather than just an abstract idea, those actors who actually engage in open innovation change the concept through their practices. Both large corporates and the entities with which they cooperate practice open innovation, but given the financial clout and legal wherewithal of big firms, it is likely that they have more influence on the terms and conditions governing open innovation agreements than their counterparts. These large corporates therefore become rule-makers that shape the practice of open innovation. Given the mutually constitutive relationship between concept and practice, they also begin to shape the concept of open innovation over time, which means that they ultimately become suppliers of the concept. The same is true for academics that consciously work on changing and expanding the concept of open innovation. Of course, the evolution of certain groups from users to suppliers affects the power relationship between the original supplier and the user groups in question.

Besides the direct users of the concept of open innovation, there are other stakeholders that neither shape the concept nor engage in the practice but are nonetheless affected by open innovation. Open innovation is meant to lead to increased levels of R&D and innovation by making sure that disparate actors work together on bringing nascent products and services to market. More R&D and innovation, in turn, can lead to faster GDP growth and more high-value added jobs for citizens. Given these

---

<sup>13</sup> European Commission. n.d. *Open Innovation Resources: Policy Initiatives, Funding Schemes and Support Services Related to Open Innovation*: [https://ec.europa.eu/info/research-and-innovation/strategy/goals-research-and-innovation-policy/open-innovation-resources\\_en](https://ec.europa.eu/info/research-and-innovation/strategy/goals-research-and-innovation-policy/open-innovation-resources_en).

positive effects, it seems uncontroversial to talk about – and practice – open innovation without receiving input from all stakeholders. However, the concept and practice of open innovation also impacts the way in which intellectual property (IP) is viewed and regulated. Policies affecting intellectual property protection are often highly controversial because of their distributional consequences. Therefore, it might be problematic to define and practice open innovation, and thereby change the manner in which IP is treated, without consulting the vast majority of stakeholders.

## 5. References

- Abbott, Kenneth W. and Duncan Snidal. 2009. "The Governance Triangle: Regulatory Standards Institutions and the Shadow of the State." In Walter Mattli and Ngaire Woods (eds), *The Politics of Global Regulation*. Princeton: Princeton University Press: 44-88.
- Akerlof, George A. 1970. "The Market for Lemons: Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics* vol.84 no.3 (August) 488-500.
- Andreoni, James. 1990. "Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving." *The Economic Journal* vol.100 no.401 (June): 464-477.
- Bach, David, and Abraham L. Newman. 2007. "The European Regulatory State and Global Public Policy: Micro-Institutions, Macro-Influence." *Journal of European Public Policy* vol.14 no.6 (September 2007): 827-846.
- Baldwin, David A. 1989. *Paradoxes of Power*. New York: Basil Blackwell.
- Barnett, Michael N., and Martha Finnemore. 2004. *Rules for the World: International Organizations in Global Politics*. Ithaca, NY: Cornell University Press.
- Baron, David P. 2001. "Private Politics, Corporate Social Responsibility, and Integrated Strategy." *Journal of Economics & Management Strategy* vol.10 no.1 (Spring 2001): 7-45.
- Bartley, Tim. 2003. "Certifying Forests and Factories: States, Social Movements, and the Rise of Private Regulation in the Apparel and Forest Products Field." *Politics & Society* vol.31 no.3 (September): 433-464.
- Bartley, Tim. 2007. "Institutional Emergence in an Era of Globalization: The Rise of Transnational Private Regulation of Labor and Environmental Conditions." *American Journal of Sociology* vol.113 no.2 (September 2007): 297-351.
- Benvenisti, Eyal and George Downs. 2009. "Toward Global Checks and Balances." *Constitutional Political Economy* vol.20 no.3/4 (September): 366-387.
- Besen, Stanley, and Joseph Farrell. 1994. "Choosing How to Compete: Strategies and Tactics in Standardization." *Journal of Economic Perspectives* vol.8 no.2 (Spring 1994): 117-131.



- Brookey, Robert Alan. 2007. "The Format Wars: Drawing the Battle Lines for the Next DVD." *Convergence* vol.13 no.2 (May 2007): 199-211.
- Büthe, Tim and Walter Mattli. 2011. *The New Global Rulers: The Privatization of Regulation in the World Economy*. Princeton: Princeton University Press.
- Büthe, Tim, and Nathaniel Harris. 2011. "The Codex Alimentarius Commission: A Hybrid Public-Private Regulator." In *Handbook on Innovations in Transnational Governance*, edited by Thomas Hale and David Held. Oxford: Polity Press, 2011.
- Büthe, Tim. 2006-2010. *The Dynamics of Principals and Agents: Institutional Persistence and Change in U.S. Financial Regulation, 1934-2003*. Unpublished manuscript, Duke University. Online at <https://ssrn.com/abstract=1796542>
- Büthe, Tim. 2007. "The Politics of Competition and Institutional Change in the European Union: The First Fifty Years." In *Making History: European Integration and Institutional Change at Fifty (State of the European Union, vol.8)*, edited by Sophie Meunier and Kathleen McNamara. Oxford: Oxford University Press, 2007: 175-193.
- Büthe, Tim. 2009. "The Politics of Food Safety in the Age of Global Trade: The Codex Alimentarius Commission in the SPS-Agreement of the WTO." In Cary Coglianese, Adam Finkel and David Zaring (eds), *Import Safety: Regulatory Governance in the Global Economy*. Philadelphia: University of Pennsylvania Press: 88-109.
- Büthe, Tim. 2010. "Private Regulation in the Global Economy: A (P)Review." *Business and Politics* vol.12 no.3 (October).
- Büthe, Tim. 2012. "Beyond Supply and Demand: A Political-Economic Conceptual Model." In *Governance by Indicators: Global Power through Quantification and Rankings*, edited by Kevin Davis, et al. New York: Oxford University Press: 29-51.
- Cafaggi, Fabrizio. 2009. "Private Regulation in European Private Law." *EUI Law Working Paper* no.2009/31.
- Camfferman, Kees and Stephen A. Zeff. 2007. *Financial Reporting and Global Capital Markets: A History of the International Accounting Standards Committee, 1973-2000*. Oxford: Oxford University Press.
- Cashore, Benjamin, Graeme Auld, and Deanna Newsom. 2004. *Governing Through Markets: Forest Certification and the Emergence of Non-State Authority*. New Haven: Yale University Press.
- Cheit, Ross E. 1990. *Setting Safety Standards: Regulation in the Public and Private Sectors*. Berkeley: University of California Press.
- Chesbrough, Henry. 2003. *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Cambridge, MA: Harvard Business School Press.

- Chesbrough, Henry. 2011. "Everything You Need to Know About Open Innovation." *Forbes* 21 March 2011. Retrieved from <https://www.forbes.com/sites/henrychesbrough/2011/03/21/everything-you-need-to-know-about-open-innovation/>.
- Dadush, Sarah. 2012. "Social Impact Investment Indicators." In *Governance by Indicators: Global Power through Quantification and Rankings*, edited by Kevin Davis, et al. New York: Oxford University Press.
- Dahl, Robert A. 1957. "The Concept of Power' *Behavioral Science* vol.2 no.3 (July): 201-215.
- Dahl, Robert A. 1985. *A Preface to Economic Democracy*. Berkeley: University of California Press.
- David, Paul A. 1985. "Clio and the Economics of QWERTY." *American Economic Review* vol.75 no.2 (Papers and Proceedings, May): 332-337.
- Davis, Kevin et al., eds. 2012. *Governance by Indicators: Global Power through Quantification and Rankings*. New York: Oxford University Press.
- Delmas, Magali A. 2002. "The Diffusion of Environmental Management Standards in Europe and in the United States: An Institutional Perspective." *Policy Sciences* vol.35 no.1: 91-119.
- DIN (Deutsches Institut für Normung), *Gesamtwirtschaftlicher Nutzen der Normung, Zusammenfassung der Ergebnisse: Wissenschaftlicher Endbericht mit Praktischen Beispielen*. Berlin: Beuth Verlag, 2000.
- Drezner, Daniel W. 2007. *All Politics Is Global: Explaining International Regulatory Regimes*. Princeton: Princeton University Press.
- Egan, Michelle. 2001. *Constructing a European Market: Standards, Regulation, and Governance*. New York: Oxford University Press.
- Ericson, Richard V., Aaron Doyle, and Dean Barry. 2003. *Insurance as Governance*. Toronto: University of Toronto Press, 2003.
- Fiorina, Morris P. 1982. "Legislative Choice of Regulatory Forms: Legal Process or Administrative Process?" *Public Choice* vol.39 no.2 (September): 33-66.
- Flaherty, Nick. 2004. "Balles of the Blues." *IEE Review* vol.50 no.4 (April 2004): 48-50.
- Fligstein, Neil. 2001. *The Architecture of Markets: An Economic Sociology of Twenty-First-Century Capitalist Societies*. Princeton: Princeton University Press, 2001.
- Gabel, H. Landis, ed. 1991. *Competitive Strategies for Product Standards: The Strategic Use of Compatibility Standards for Competitive Advantage*. London: McGraw-Hill.
- Green, Jessica F. 2010. *Private Actors, Public Goods: Private Authority in Global Environmental Politics*. Princeton University, Princeton.



- Greenstein, Shane. 2006. "Format Wars All Over Again." *IEEE Micro* vol.26 no.1 (Jan-Feb 2006): 7, 140.
- Grewal, David Singh. 2008. *Network Power: The Social Dynamics of Globalization*. New Haven: Yale University Press.
- Hamilton, Robert W. 1978. "The Role of Nongovernmental Standards in the Development of Mandatory Federal Standards Affecting Safety or Health." *Texas Law Review* vol.56 no.8 (November): 1329-1484.
- Haufler, Virginia. 2001. *The Public Role of the Private Sector: Industry Self-Regulation in a Global Economy*. Washington, D.C.: Carnegie Endowment for International Peace.
- Helleiner, Eric. 2009. "Filling a Hole in Global Financial Governance? The Politics of Regulating Sovereign Debt Restructuring," in Mattli and Woods (eds.), *The Politics of Global Regulation*: 89-120.
- Hutter, Bridget M. 2006. "The Role of Non-State Actors in Regulation." in Gunnar Folke Schuppert (ed), *Global Governance and the Role of Non-State Actors* (Baden-Baden: Nomos Verlag, 2006) 63-79, 66.
- Jaffee, Daniel. 2007. *Brewing Justice: Fair Trade Coffee, Sustainability, and Survival*. Berkeley: University of California Press.
- Katz, Michael L. and Carl Shapiro. 1985. "Network Externalities, Competition, and Compatibility." *American Economic Review* vol.75 no.3 (June) 424-440.
- Kelley, Judith, and Beth Simmons. 2015. "Politics by Numbers: Indicators as Social Pressure in International Relations." *American Journal of Political Science* vol.59 no.1 (January): 55-70.
- Keohane, Robert O., and Joseph S. Nye. 2001 (1977). *Power and Interdependence*. 3rd edition ed. New York: Addison Wesley Longman.
- Koppell, Jonathan G. S. 2010. *World Rule: Accountability, Legitimacy, and the Design of Global Governance*. Chicago: University of Chicago Press.
- Krasner, Stephen D. 1991. "Global Communications and National Power: Life on the Pareto Frontier." *World Politics* vol.43 no.3 (April 1991): 336-366.
- Levi, Margaret, and April Linton. 2003. "Fair Trade: A Cup at a Time?" *Politics & Society* vol.31 no.3 (September): 407-432.
- Macaulay, Stewart. 1986. "Private Government." In Leon Lipson and Stanton Wheeler (eds), *Law and the Social Sciences*. New York: Russell Sage Foundation: 445-518.
- Martinez-Diaz, Leonardo. 2006. "Strategic Experts and Improvising Regulators: Explaining the IASC's Rise to Global Influence 1973-2001." *Business and Politics* vol.7 no.3 (December).

- Meidinger, Errol, Chris Elliott, and Gerhard Oesten (eds). 2003. *Social and Political Dimensions of Forest Certification*. Remagen-Oberwinter: Forstbuch Verlag.
- Moe, Terry M. 2005. "Power and Political Institutions" *Perspectives on Politics* vol.3 no.2 (June) 215-233.
- Pollack, Mark A., and Gregory C. Shaffer. 2009. *When Cooperation Fails: The Law and Politics of Genetically Modified Foods*. New York: Oxford University Press.
- Prakash Aseem and Matthew Potoski. 2006. *The Voluntary Environmentalists*. New York: Cambridge University Press.
- Raynolds, Laura T., Douglas L. Murray, and John Wilkinson, eds. 2007. *Fair Trade: The Challenges of Transforming Globalization*. London–New York: Routledge.
- Rees, Joseph. 1994. *Hostages of Each Other* Chicago: University of Chicago Press.
- Riedl, Rachel Beatty, Ekrem Karakoc, and Tim Büthe. 2020. "Power and Institutionalization." *Perspectives on Politics* vol.18 no.4 (forthcoming).
- Salter, Liora. 1988. *Mandated Science: Science and Scientists in the Making of Standards*. Dordrecht: Kluwer Academic Publishers.
- Schepel, Harm. 2005. *The Constitution of Private Governance: Product Standards in the Regulation of Integrating Markets*. Portland: Hart Publishers.
- Simmons, Beth A. 2001. "The International Politics of Harmonization: The Case of Capital Market Regulation." *International Organization* vol.55 no.3 (Summer 2001): 589-620.
- Singer, David Andrew. 2007. *Regulating Capital: Setting Standards for the International Financial System*. Ithaca, NY: Cornell University Press.
- Slaughter, Anne-Marie. 2004. *A New World Order*. Princeton: Princeton University Press.
- Soble, Jonathan. 2008. "Toshiba Counts Cost of HD Defeat" *Financial Times* 20 March 2008: 20.
- Starobin, Shana, and Erika Weinthal. 2010. "The Search for Credible Information in Social and Environmental Global Governance: The Kosher Label." *Business and Politics* vol.12 no.3 (October 2010).
- Swann, G. M. Peter. 2000. *The Economics of Standardization: Final Report for Standards and Technical Regulations Directorate, Department of Trade and Industry*. Manchester: Manchester Business School Report.
- Taylor, Peter L. 2005. "In the Market But Not of It: Fair Trade Coffee and Forest Stewardship Council Certification as Market-Based Social Change." *World Development* vol.33 no.1 (January): 129-147.
- Vogel, David. 1995. *Trading Up: Consumer and Environmental Regulation in a Global Economy*. Cambridge, MA: Harvard University Press.

- Vogel, David. 2005. "Private Global Business Regulation." *Annual Review of Political Science* vol.11: 261-282.
- Vogel, David. 2005. *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility*. Washington, D.C.: Brookings Institution Press.
- Vogel, David. 2012. *The Politics of Precaution: Regulating Health, Safety and Environmental Risks in the United States and Europe*. Princeton: Princeton University Press.
- Vogel, Steven K. 1996. *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries*. Ithaca, NY: Cornell University Press.
- Vogel, Steven K. 2008. "Why Freer Markets Need More Rules." In *The Political Economy Reader: Markets as Institutions*, edited by Naazneen H. Barma and Steven K. Vogel. New York: Routledge: 341-354.
- Vogel, Steven K. 2018. *Marketcraft: How Governments Make Markets Work*. New York: Oxford University Press.



**INSTITUTION EURASIAN INSTITUTE  
OF INTERNATIONAL RELATIONS**

